Remarks/Arguments

Claims **1 - 35** are pending in the present application. Claims **6, 7, 18, 22, 25** and **28** have been amended to cure minor typographical errors; claims **31 - 35** were added and no claims were canceled. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 102

The Examiner has rejected claims **1 - 4, 7, 12, 15-19, 22, 25, 27** and **30** under 35 U.S.C. §102 as being anticipated by Csipkes et al. (U.S. 5,724,127). This rejection is respectfully traversed.

The Examiner stated:

> Csipkes et al discloses a borescope having a borescope insertion tube and an optical lens; and a borescope insertion tube adapter for adapting the borescope insertion tube to an optical component to be inspected. See Figs. 4-6 and lines 54-66 of column 5 through lines 1-36 of column 6. As to claims 7, 15, 22, and 30, embodiments of Figs. 4-6 discuss the adapter being an SC, FC, and E2000 component type.
>
> As to claims 12 and 27, Csipkes et al discloses a light emitter for illuminating a target of the optical component to be inspected. See Fig. 7, reference numeral 188.

Claims 1 and 16:

Applicant's representative disagrees with both the rejection and the Examiner's characterization of the cited prior art. Furthermore Csipkes *et al.* discloses little more than a scope that Applicant has admitted as prior art in the background section (see page 2 – 4). Hence, Csipkes *et al.* suffers from many of the same shortcomings of the prior art discussed in the present background section.

Initially, Applicant's representative reminds the Examiner that a prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims, *In re*

Bond, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Furthermore, the Examiner cannot choose to ignore some elements of the claims and consider others; instead all limitations of the claimed invention must be considered when determining patentability, *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). "A claimed device is anticipated if a single prior art reference discloses all the elements of the claimed invention as arranged in the claim." *Scott v.Inflatable Sys., Inc.*, 222 U.S.P.Q. 460 (9th Cir. 1983); *Crucible, Inc. v. Stora Kopparbergs Bergslags AB*, 594 F. Supp. 1249, 226 U.S.P.Q. 36, 40 (W.D. Pa. 1984) aff'd in part & remanded in part sub nom. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 230 U.S.P.Q. 81 (Fed. Cir. 1986) (citing Treatise).

Claim **1** recites:

> A device for visually inspecting optical component comprising:
>
> a borescope, said borescope having a borescope insertion tube and an optical lens for viewing a target; and
>
> borescope insertion tube adapter for adapting the borescope insertion tube to an optical component to be inspected.

Csipkes *et al.* do not teach, suggest or even so much as mention a borescope, much less a "borescope having a borescope insertion tube and an optical lens for viewing a target," as recited in claim **1**. Furthermore, Csipkes *et al.* cannot teach or suggest "borescope insertion tube adapter" of any type. Still more particularly, Csipkes *et al.* cannot, therefore, suggest "borescope insertion tube adapter for adapting the borescope insertion tube to an optical component to be inspected."

Firstly, although borescopes were known and in continuos and widespread usage at the time of the invention by Csipkes *et al.*, nowhere do Csipkes *et al.* so much as mention a borescope. Moreover, the scope disclosed by Csipkes *et al.* could not properly be characterized as a borescope; instead, Csipkes *et al.* describe a scope of a similar type to that which Applicant has described in the background section, *i.e.*, a fiber microscope or a fiber scope.

Csipkes *et al.* describe scope **160** as having a body with a large diameter portion and a smaller diameter portion (although the smaller diameter is disclosed as being an inch in diameter). Specifically regarding the physical configuration of scope **160**, Csipkes *et al.* state:

> FIG. 9 is a partially cut-away perspective view of the scope 160. The body 162 of the scope may have a larger diameter rear portion 210 that may have the eyepiece receptacle 182, and a smaller diameter front portion 212. The smaller diameter front portion may have a diameter of about one inch and may have a bulkhead adapter 178 attached. The extended length of the front portion makes it easier to inspect the fiber optics of hard to reach bulkheads. For example, many electro-optical modules may have hard to reach bulkheads that require the smaller diameter front portion. (col. 8, lines 33-43)

Thus, rather than disclose anything suggestive of a borescope insertion tube, Csipkes *et al.* explicitly teach a scope body having a larger diameter rear portion **210** and a smaller diameter front portion **212**.

Distinctions between a borescope and scope **160** relied on by Csipkes *et al.* abound in the cited reference; however, passages by Csipkes *et al.* describing the physical structure and operation of scope **160** are particularly convincing.

> FIG. 9 is a partially cut-away perspective view of the scope 160. The body 162 of the scope may have a larger diameter rear portion 210 that may have the eyepiece receptacle 182, and a smaller diameter front portion 212. The smaller diameter front portion may **have a diameter of about one inch** and may have a bulkhead adapter 178 attached. The extended length of the front portion makes it easier to inspect the fiber optics of hard to reach bulkheads. For example, many electro-optical modules may have hard to reach bulkheads that require the smaller diameter front portion. (col. 9, lines 32-44)(emphasis added)

> FIG. 11 is a cutaway side view of the scope 160 showing more details of the optical path within the scope and FIG. 12 is a perspective view of the anti-reflection mechanism that is part of the scope. Since light is being transmitted through the scope, the inner walls of the entire scope may have a reflecting absorbing coating, such as black paint, in order to reduce any undesirable reflections. For example, an inner surface 240 of the upper mounting block 216 may have the coating as well as an inner surface 242 of the front portion 212 of the scope. In order to further reduce any undesired reflections, a first diaphragm 244 at the front of the scope limits any undesirable reflections from outside of the scope. A second diaphragm 246 may be located adjacent to the prism 224 and

> may further limit the amount of reflections that are transmitted to the eyepiece or the image receiving device. An aperture 248 of the second diaphragm may be approximately 100 microns wide, which is the approximate width of the glass regions of a fiber optic. Since the zirconia portion of a fiber optic connector tends to reflect a large amount of light which may make it difficult to view the much darker image generated by the fiber glass portions, it is desirable to filter out the light reflected by the zirconia portion and the aperture has been chosen to accomplish that result. There may be a third diaphragm 250 adjacent to the tiltable reflecting device 180 that further reduces any undesired reflections. An aperture 252 of the third diaphragm may have a similar size to the aperture 248 of the other diaphragms. To further reduce undesired reflections, a fourth diaphragm 254 with an aperture 256 may be located adjacent the eyepiece receptacle 182 to reduce the reflections that the operator of the scope may view through the scope. Finally, the viewing lens may have a filter to block laser emissions that may be generated by a "lighted" fiber core that is connected to a laser source to prevent damage to an operator's eye. (col. 9, lines 16-50)(emphasis added)

Clearly Csipkes *et al.* are describing, at best, an *improvement* to a prior art fiber microscope and not a borescope which includes, *inter alia*, a borescope insertion tube as is recited throughout the present claims.

Since Csipkes *et al.* do not teach or suggest a borescope, or using a borescope for inspecting optical components, and do not teach or suggest "a borescope having a borescope insertion tube and an optical lens for viewing a target," or teach or suggest "borescope insertion tube adapter for adapting the borescope insertion tube to an optical component to be inspected," each and every element of the claimed invention has not been shown. Therefore, it is respectfully asserted that the Examiner has not met the burden and the rejection of claims **1** and **16** should be withdrawn and the claims allowed. Since claims **2 – 14** and **17 – 30** depend from claims **1** and **16**, it is respectfully asserted that those claims are also in condition for immediate allowance.

II. 35 U.S.C. § 103, Obviousness

The Examiner has rejected claims **5 - 6** and **20-21** under 35 U.S.C. §103 as being unpatentable over Csipkes *et al.* This rejection is respectfully traversed.

The Examiner stated:

Csipkes et al, as discussed above, fails to disclose a protective sleeve disposed between the borescope insertion tube and the adapter body and a lock for securing the protective sleeve to the borescope insertion type.

However, as noted with respect to Fig. 4, Csipkes et al discloses an inner rectangular opening for securing the SC adapter body positioned between the borescope insertion tube and the adapter body. Also providing such protection through a protection sleeve and a locking mechanism of the protection are well known in the art. The ordinary artisan would have found desirable to provide a protection sleeve with locking mechanism in the reference of Csipkes et al reference for the purpose of efficiently securing the protecting the adapter body.

Thus, the ordinary artisan would have been it obvious at the time of the invention to provide a protection sleeve and a lock mechanism for the protection sleeve in Csipkes et al reference for the purpose of advantageously increasing mechanical strength of the inspection device.

Claims 5 - 6 and 20 - 21:

Regarding the rejection of claims **5 - 6** and **20 - 21**, Applicant's representative respectfully asserts that this rejection is improper and should be withdrawn. While Applicant's representative may not disagree that protective sleeves are known in the prior art, the mere fact that a feature element may be known does not, in itself, provide a proper basis for rejection under 35 U.S.C. §103 without adhering to the basic tenets of patent law (MPEP 2145). Each of the references must be considered as a whole and must suggest the desirability and thus the obviousness of making a combination.

In the present case, the Examiner has admitted that Csipkes *et al.* does not teach a protective sleeve, but rationalizes that it would be obvious to modify scope **160** with a protective sleeve "for the purpose of advantageously increasing mechanical strength of the inspection device." Applicant's representative disagrees with the rationale provided by the Examiner for the reasons given below.

Csipkes *et al.* describes smaller diameter front portion **212** of scope **160** as having a "**diameter of about one inch**," and bulkhead adapter **178** appears to be attached to the distal end of front portion **212** (col. 9, lines 32-44 and **FIG. 9**). Nowhere do Csipkes *et al.* suggest the need for more mechanical strength over that provided by the relatively large diameter of front portion

212. Furthermore, considering the fact that bulkhead adapter **178** does not seem to apply any cantilever force to the sides of front portion **212**, the motivation for including a protective sleeve for more mechanical strength to prevent lateral deformation of front portion **212** by bulkhead adapter **178** seems equally illusory.

It is respectfully asserted that the sole reason for modifying front portion **212** of Csipkes *et al.*'s scope **160** is because the Examiner has engaged in impermissible hindsight in making the combination. In determining obviousness, an Applicant's teachings may not be read into the prior art. *Panduit Corp. v. Denison Mfg. Co.*, 810 F.2d 1561, 1575 n. 29, 1 U.S.P.Q. 1593, 1602 n. 29 (Fed. Cir. 1987) (citing need to "guard against hindsight and the temptation to read the inventor's teachings into the prior art"). A determination of the desirability of combining prior art references must be made without the benefit of hindsight afforded by an applicant's disclosure. *In re Paulsen*, 30 F.3d 1475, 1482, 31 U.S.P.Q. 1671, 1676 (Fed. Cir. 1994).

Since Csipkes *et al.* do not teach or suggest modifying the scope with a protective sleeve, and since Csipkes *et al.* has no reference showing that a protective sleeve is combined with Csipkes *et al.* in an permissible way, each and every element of the claimed invention has not been shown. Moreover, the claimed invention has not been considered as a whole while making the rejection. The Examiner has not established a proper *prima facie* case of obviousness as required. Therefore, it is respectfully asserted that the Examiner has not met the burden and the rejection of claims **5 - 6** and **20 - 21** should be withdrawn.

Claims 8 - 9 and 23 - 24:

The Examiner has rejected claims **8 - 9** and **23 - 24** under 35 U.S.C. §103 as being unpatentable over Csipkes *et al.* and Applicant's admitted prior art of Figs. 6A-6E. This rejection is respectfully traversed.

The Examiner states:

> Csipkes et al, as discussed above, fails to disclose a shutter on the optical component and the adapter body for actuating the shutter.

Figs. 6A-6E of applicant's admitted prior art discloses a shutter means and actuating means for actuating the shutter upon insertion. Such device is well known in the art to protect the optical fiber from dust.

From teachings of applicant's admitted prior art and available well-known techniques, the ordinary artisan would have found it to be obvious at the time of the invention to provide an actuation means on the adapter of Csipkes et al for the purpose of advantageously inspecting the optical connectors provided with the shutter.

Regarding the rejection of claims **8 - 9** and **23 - 24**, here again Applicant's representative respectfully asserts that this rejection is improper and should be withdrawn. Applicant freely admits that connectors with protective shutters are known in the prior art but disagrees that it would be obvious to those of ordinary skill in the art to modify the adapter body of borescope insertion tube adapter affixed to the borescope insertion tube of a borescope "wherein the adapter body cooperates with a shutter on the optical component to be inspected."

While Csipkes *et al.* may infer that it is possible to inspect a fiber positioned in a optical component or in which the "bulkhead may be attached to a panel," the detailed disclosure primarily describes an inspection procedure in which the fiber connectors are detached from the bulkhead (whether or not the bulkhead, or adapter, is shuttered). Csipkes *et al.* primarily describe the inspection procedure Applicant discusses in the background section. Without showing the bulkhead being inspected in place, *i.e., in situ*, there is no motivation whatsoever to provide an adapter body that cooperates with a shutter on the optical component to be inspected.

Moreover, bulkhead **170** shown and described by Csipkes *et al.* is not comparable to, for example, adapter **602** shown in **FIG. 6** of the present specification, in that the core **234** of fiber optic **230** actually extends into bulkhead **170**. Bulkhead adapter **178** then appears to fit around bulkhead **170** and does rather than engaging into it. Thus, apparently, Csipkes *et al.* describe an inspection apparatus which is simply designed for alternative usage.

Once again, while shuttered adapters may be known, the only inspection adapter, "wherein the adapter body cooperates with a shutter on the optical component to be inspected," is taught by the Applicant. In determining obviousness, an applicant's teachings may not be read into the prior art. *Id. Panduit Corp.*

Since Csipkes *et al.* do not teach or suggest an adapter, "wherein the adapter body cooperates with a shutter on the optical component to be inspected," and since the Examiner has not pointed to any adapter for inspecting an optical component, "wherein the adapter body cooperates with a shutter on the optical component to be inspected," each and every element of the claimed invention has not been shown. The Examiner has not established a proper *prima facie* case of obviousness. Therefore, it is respectfully asserted that the Examiner has not met the burden and the rejection of claims **8 - 9** and **23 - 24** should be withdrawn.

III. Conclusion

It is respectfully urged that the subject application is patentable over Csipkes *et al.* (U.S. 5,724,127) and any other permissible combination of Noticed features, and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if, in the opinion of the Examiner, such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

Date: December 15, 2003

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